

## Problem F

### Food Rating

In the new food delivery app *Touch*, customers are able to rate the driver with integer scores from  $L$  to  $R$  inclusive. Drivers will get a bonus based on how high their average rating is. However, some drivers may abuse this system. A driver delivering food to 1 customer may get 5.0 average rating, while another driver delivering food to 5 customers may get 4.8 average rating.

As the owner of the app, you need to ensure fairness in the bonus system. To do that, you need to know: for a driver to have an average rating of exactly  $X$ , what is the minimum number of delivery  $k$ , such that there exists a scenario where the average rating given by  $k$  customers is exactly  $X$ . In addition to that, output any list of  $k$  integers within  $L$  to  $R$  such that the average of the list is exactly  $X$ .

#### Input

The first line contains a real number  $X$  ( $0 \leq X \leq 1000$ ). The number  $X$  contains at most 6 digits, including both digits before and after the decimal separator (if any).

The second line contains two integers  $L$  and  $R$  ( $1 \leq L \leq R \leq 1000$ ).

#### Output

If there exists a scenario where a driver can get an average rating exactly  $X$ , output in the first line, the minimum integer  $k$  representing the minimum number of customers giving the rating. In the next line, output  $k$  integers between  $L$  and  $R$  representing the rating given by the customers.

If there is no such scenario, output  $-1$  in a single line.

#### Sample Input 1

8.6  
1 10

#### Sample Output 1

5  
10 9 10 7 7

*Explanation of Sample 1:* The average of  $[10, 9, 10, 7, 7]$  is exactly 8.6. It can be proven such that there is no valid list with four or less integers.

#### Sample Input 2

9  
1 10

#### Sample Output 2

1  
9

#### Sample Input 3

2.79  
3 5

#### Sample Output 3

-1



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